DOCUMENT RESUME

ED 296 979 SP 030 388

AUTHOR Stedman, James B.; Jordan, K. Forbis
TITLE Education Reform Reports: Content and Impact.
INSTITUTION Library of Congress, Washington, D.C. Congressional Research Service.
PUB DATE 17 Mar 86
NOTE 85p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Educational Change; *Educational Objectives; Educational Resources; High Schools; *Opinion Papers; *Position Papers; *Research Reports; State Action; Teacher Certification; Teacher Salaries; Teaching Conditions

ABSTRACT

In 1983 and 1984, a number of reports were issued that criticized the status of schools, primarily high schools. These reports gave impetus to widespread efforts to improve education. This paper presents an analysis of the content and impact of the reform reports, reviewing earlier reform efforts, assessing the primary ways in which the reports agreed and differed, delineating how various levels of government responded to the reform effort, and suggesting the reports' implications for education. An appendix provides detailed summaries of each of seven reform reports. (Author)

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Report No. 86-56 EPW

ED296979

EDUCATION REFORM REPORTS: CONTENT AND IMPACT

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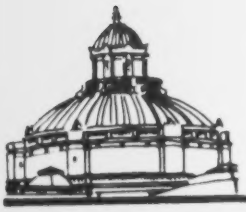

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ABSTRACT

In 1983 and 1984, a number of reports were issued that criticized the status of schools, primarily high schools. These reports gave impetus to widespread efforts to improve education. This paper presents an analysis of the content and impact of the reform reports, reviewing earlier reform efforts, assessing the primary ways in which the reports agreed and differed, delineating how various levels of government responded to the reform effort, and suggesting the reports' implications for education. An appendix provides detailed summaries of each of seven reform reports.

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EDUCATION REFORM REPORTS: CONTENT AND IMPACT

I. INTRODUCTION

The country has witnessed, in recent years, a burst of activity in education focused primarily on reform of public high schools. Given impetus by the release in 1983 of A Nation At Risk, 1/ school reform came to dominate the deliberations of many State legislatures, governors, and State departments of education. At the Federal level, President Reagan made educational improvement a priority for national attention; the Secretary of Education conducted meetings across the country to explore the findings and recommendations of the National Commission on Excellence in Education; and a series of reform related programs were enacted. Now, nearly 3 years after the flood of the first reform reports in 1983 and 1984, is an appropriate time to sum up what has happened to this reform effort and consider its implications.

This paper analyses the recent reform reports and their impact on education reform. It considers the following:

1/ National Commission on Excellence in Education. A Nation At Risk. 1983.

(1) the background to the early 1980s reform activity, including a brief statistical description of today's high school, and a discussion of past high school reform efforts;

(2) the reform reports issued in 1983 and 1984, identifying their common themes and differences with regard to educational performance, objectives, and necessary steps for improvement;

(3) responses to the reports at the Federal, State, and local levels, focusing on a few of the major State initiatives; and,

(4) the implications of the recent reform action.

An appendix provides detailed summaries of seven major reform reports analyzed in the body of the paper.

II. BACKGROUND

This section places the reports of the 1980s in context by providing a brief statistical overview of the high school in 1980, and a discussion of past high school reform efforts, focusing in particular on the most recent reform actions taken shortly before release of A Nation At Risk.

A. Statistical Overview

The high school has changed over the course of this century from an institution serving a very small portion of the teenage population to one with which nearly all youth have some experience. 2/ In the 1889-90 school year, nearly 44,000 individuals graduated from high school; by 1979-80, over three million students a year were graduating. High school graduates as a percentage of the 17-year old population showed steady growth. Table 1 below delineates this development.

2/ The focus of this paper is on "high schools," that is, schools serving grades 9 or 10 through 12. Most of the reform reports under analysis specifically address schools serving those grades. The term "secondary schools" in this paper defines a group of schools composed of junior high or middle schools (often including grades 7 and 8) and high schools.

TABLE 1. High School Graduates

School year	Number of public and private high school graduates	High school graduates as percentage of population age 17
1889-90	43,371	3.5%
1919-20	311,266	16.8%
1949-50	1,199,700	59.0%
1979-80	3,058,000	71.1%

Source: National Center for Education Statistics, Digest of Education Statistics: 1983-84, table 56, p. 68. High school graduates in any one year come from more than just the 17-year old age cohort. The number of graduates is compared to the number of persons in that cohort primarily to suggest the rapid growth in the magnitude of the former.

The annual percentage of high school graduates who attended public schools rapidly rose from about 50 percent in 1889-90 to nearly 75 percent by 1919-20, and has remained relatively level at about 90 percent since 1949-50. 3/

Changes in total enrollment in the high school paralleled the growth in high school graduates. At the turn of the century, approximately 700,000 students were enrolled in grades 9-12. 4/ By 1949-50, high schools enrolled some 6,500,000 students; and, by 1979-80, slightly more than 15,000,000 students were enrolled in the country's high schools. The bulk of high school enrollment has been in public schools throughout this century. 5/ In 1979-80, 90 percent of high school students attended public schools.

3/ National Center for Education Statistics. Digest of Education Statistics: 1983-84. Tables 21 and 56, p. 27, 68.

4/ Ibid., table 3, p. 8. (High school postgraduate enrollment is included in these figures.)

5/ Ibid., tables 3 and 21, p. 8, 27.

The schools serving these 15 million high school students included 10,758 3- or 4-year public high schools, 5,971 public schools designated as high schools with somewhat different grade spans, and 1,743 combined public elementary and secondary schools. 6/ Another 2,219 private secondary schools and 3,459 private combined elementary and secondary schools enrolled high school students. 7/ In the fall of 1981, 1,051,000 teachers taught in public and private secondary schools (generally grades 7 through 12). 8/ High schools (grades 9 through 12) employed approximately 600,000 of them. 9/

Turning to the racial characteristics of high school enrollment, one finds that the white share of total high school enrollment has been slowly declining. In 1953, white students constituted 89 percent of total high school enrollment.

6/ Ibid., table 55, p. 68.

7/ Ibid., table 38, p. 47.

8/ Ibid., table 6, p. 11.

9/ Estimate based on data from The American Teacher, edited by C. Emily Feistritzer, 1983.

By 1971, the white share had dropped to 86 percent and, by 1981, to 82 percent of total enrollment. 10/

B. Previous Reform Efforts

By the early 1900s, the high school had taken on most of the procedural, academic, and structural attributes it now has today. 11/ Cuban, for example, asserts that for the past 80 years, the high school has presented a picture

> . . . striking in its uniformity: persistence of whole-group instruction, teacher talk outdistancing student talk, question/answer format drawn largely from textbooks, and little student movement in academic classes. 12/

Such a portrait of what some might call institutional resilience and others, resistance to change, is all the more noteworthy given the flow of high

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10/ Bureau of the Census. Private School Enrollment, Tuition, and Enrollment Trends: Oct. 1979. Current Population Reports, Special Studies, series P-23, no. 121. Table 1. p. 15-16; Bureau of the Census. School Enrollment--Social and Economic Characteristics of Students: Oct. 1981 and 1980. Current Population Report, series P-20, no. 400. Table 3. p. 15-17. (Racial data on high school enrollment are published by the Census for 1953 and subsequent years. In 1986, blacks made up 15 percent of high school enrollment and Spanish origin youth, who may be of any race, constituted 8 percent of enrollment.)

11/ Cuban, Larry. Persistent Instruction: The High School Classroom, 1900-1980. Phi Delta Kappan, Oct. 1982. p. 113-118; and James, Thomas and David Tyack. Learning from Past Efforts to Reform the High School. Phi Delta Kappan, Feb. 1983. p. 400-406.

12/ Ibid., p. 116.

school reform reports and efforts over the past century. 13/ From the report by the Committee of Ten on Secondary School Studies in 1893 to the spate of reports in the 1980s, would-be reformers of the high school have proposed new missions, new structures, and new content for the institution, motivated in part by concern that societal needs were not being met. The reform reports of the past century swung between concern for the needs of the college-goer and those for whom high school marked the end of formal education. Tyack and James suggest that the relatively little influence most reformers have had on the institution may be explained by their failure to address or to influence in depth the interaction between student and teachers. Teachers, they stated, "may see the immediate educational situation in more balanced ways than do reformers." 14/ Thus, they may not be influenced by recommended reforms.

The recent high school reform reports are associated with an apparently new wave of reform action at State and local levels; but, States and localities have, in actuality, been engaged in improvement efforts dating from the mid-1970s.

13/ Cuban, Persistent Instruction; James and Tyack, Learning from Past Efforts; Passow, A. Harry. Once Again: Reforming Secondary Education. Teachers College Record, Dec. 1975. p. 161-187; Education in the United States: A Documentary History. Edited by Sol Cohen, V. 3, 1974, p. 1930-1944 (excerpts from Report of the Committee of Ten on Secondary School Studies, 1893), and v. 4, 1974. p. 2278-2289 (excerpts from Cardinal Principles of Secondary Education, 1918); Conant, James Bryant. The American High School Today. 1959; The National Commission on the Reform of Secondary Education. The Reform of Secondary Education: A Report to the Public and the Profession. 1973; and Panel on Youth of the President's Science Advisory Committee. Youth: Transition to Adulthood. 1973.

14/ James and Tyack, p. 406.

According to Odden and Dougherty, 15/ State school improvement programs in the 1970s and early 1980s were widespread and focused on, among other things, enhancement of the leadership abilities of school administrators and the instructional skills of the teaching force; improvement of basic skills instruction; creation of in-school environments conducive to academic achievement following, in part, the effective schools research; 16/ State sponsored information dissemination and technical assistance; student competency testing; and increased parental involvement. They concluded that most of such State action addressed problems in elementary education; but, they suggested reform would shift to secondary education in the near future.

From their 50-State survey data conducted in May and June 1982, Odden and Dougherty found that 13 States had implemented new teacher certification procedures; 16 States administered a teacher proficiency/competency exam; 19 States operated programs to train administrators; 23 conducted curriculum

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15/ Odden, Allan and Van Dougherty. State Programs of School Improvement: A 50-State Survey. Report no. 182-3. Education Commission of the States, Aug. 1982.

16/ For a review of this research, see U.S. Library of Congress. Congressional Research Service. The Effective Schools Research: Content and Criticisms. Typed Report, by James B. Stedman, Dec. 18, 1985. Washington, 1985.

development programs; 23 had programs to improve the functioning of schools; and 36 tested student competency. 17/

Local school districts also undertook their own improvement programs during this period. According to a sample survey of school districts by the National Center for Education Statistics, many districts had increased attendance and curricular requirements between 1979-80 and 1980-81 (69 percent and 53 percent respectively); a third increased in-service teacher training to improve subject matter competence (36 percent); a quarter had increased graduation requirements (27 percent); about a fifth required more homework (19 percent); a tenth instituted, or increased the amount of, competency testing for their teachers (9 percent); and somewhat fewer than a tenth had extended the school day or year (7 percent). 18/

In retrospect, it is evident that the 1980s reports addressed an educational system that for several years had been making improvements in its programs.

17/ Odden and Dougherty, tables 1 and 2, p. 10-13. (As a result of the complexity of school reform, counts such as these should be used as relatively crude indicators of the extent of State action. They vary from source to source. For example, using unpublished tabulations by the Education Commission of the States, the National Center for Education Statistics reported that 39 States by 1982 employed minimum competency tests for students--17 States required these for high school graduation, and 13 used them for remediation purposes. (The Condition of Education, 1983 Edition, table 1.26, p. 64.) In contrast, Odden and Dougherty identified 36 such States.)

18/ National Center for Education Statistics. Condition of Education, 1983 Edition. Table 1.28. p. 68.

III. CONTENT OF THE NATIONAL REPORTS

Of the many recent reform reports, seven of them garnered most of the national attention and are discussed in the report in detail: 19/

(1) A Nation At Risk (1983) from the National Commission on Excellence in Education;

(2) Making the Grade (1983) from the Twentieth Century Fund Task Force on Federal Education Policy;

(3) Action for Excellence (1983) from the Education Commission of the States' Task Force for Economic Growth;

(4) High School (1983) by Ernest L. Boyer of The Carnegie Foundation for the Advancement of Teaching;

(5) Educating Americans for the 21st Century (1983) from the National Science Board Commission on Precollege Education in Mathematics, Science and Technology;

(6) A Place Called School (1983) by John I. Goodlad (report from A Study of Schooling); and

(7) Horace's Compromise (1984) by Theodore R. Sizer (report from A Study of High Schools).

This section delineates the major common themes of these reports, and identifies certain differences among them.

19/ For summaries of these seven reports, see the appendix of this paper.

A. Common Themes

These seven reform reports generally share six common themes with regard to the condition of high school education and what improvements are needed:

(1) the country's declining competitive position in the international economy makes reform of the high school an imperative;

(2) students' academic performance is poor and should be improved;

(3) graduation and curriculum standards need strengthening and focusing;

(4) teachers should have improved working conditions, more compensation, better training and more rigorous certification requirements;

(5) teachers and principals fail or are unable to exercise their proper leadership roles; and

(6) education is isolated from other agencies and forces in the community, particularly business, and should seek greater support through partnerships.

1. International Economic Competition

The early 1980s witnessed an outpouring of school reform reports, particularly addressing shortcomings of the high school, in large part because of concern that the United States was failing to maintain its dominant position in the international economy. The report makers asserted that the Nation suffered in its competition with other industrialized countries such as Japan and West Germany. The high school drew their immediate attention because it produced the bulk of the country's workforce; and, the inadequacies of American high schools, they posited, directly contributed to declining productivity.

The reports frequently praised the educational systems in the industrialized countries most effectively challenging the United States, particularly Japan, attributing these countries' economic ascendance to the output of their schools. Foreign school systems, the reports claimed, made better use of time and required a more rigorous academic program of study; these systems offered, as well, instructive models for reform of American schooling.

The National Commission on Excellence in Education put it bluntly--"Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world." 20/

2. Student Performance

The reports were nearly unanimous in their assessment--students, primarily high school students, perform poorly, showing little mastery of complex, higher order skills. A Nation At Risk, reflective of the other reports in this regard, concluded that:

(1) U.S. students suffered in comparison with those from other industrialized nations, finishing last on 7 of 19 achievement tests given a decade ago;

(2) almost 1 in 8 of the Nation's 17-year-olds is functionally illiterate, as is over 1 in 3 minority teens;

(3) average Scholastic Aptitude Test (SAT) scores, from 1963 to 1980, fell over 50 points in the verbal portion of the test and some 40 points in the math portion;

(4) students scoring in the highest ranges of the SAT declined as a group both in terms of numbers and proportion of all test takers;

20/ National Commission on Excellence in Education, p. 5.

(5) higher order thinking skills of 17-year-olds (as measured by the National Assessment of Educational Progress) declined over the past decade; and

(6) in the last half of the 1970s, colleges have increasingly needed to provide remedial courses to students.

The report concluded, "[T]he average graduate of our schools and colleges today is not as well-educated as the average graduate of 25 or 35 years ago, when a much smaller proportion of our population completed high school and college." 21/

Among the most frequent recommendations to improve student performance problems was periodic testing of students' mastery of subject matter. These tests, according to the reports, should serve a dual function of identifying students who can progress through the educational system as well as identifying those students in need of remedial work.

3. Graduation and Curricular Standards

Most of these reports expressed concern about the lax academic standards, both in terms of the rigor and focus of the high school curriculum and the specific mix of courses required for high school graduation. Students have moved away from the college-preparatory academic track into the less demanding general track. The most frequently used similes in these and other reports to describe the relationship between students and their high school curriculum evoked images of random choice--the high schools and their curriculum were like

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21/ Ibid., 11.

a "smorgasbord," or a "cafeteria." Students, it was posited, select among the various curricular offerings with little guidance.

High school graduation requirements, particularly as mandated by the States, concerned the report makers. Not enough science or mathematics is required; the absence of foreign language requirements across the States was decried; more English to ensure "literacy" is needed. At the same time, States, according to the reports, burden students with unnecessary or counterproductive graduation requirements, such as drivers education, consumer education, instruction in "free enterprise," and physical education. 22/

Many of the reports proposed a particular mix of courses that should be required for high school graduation. For example, the National Commission on Excellence in Education said that all students should be required to take the so-called "New Basics"--4 years of English, 3 years of math, 3 years of science, 3 years of social studies and a half-year of computer science. The National Science Board concurred in the math and science requirements and called for phasing in of 4-year requirements in the two fields. Boyer proposed a broader array of required courses, calling for 3 years of English, 2 of foreign language study, 2 1/2 of history, 1 of civics, 2 of science, 2 of math, 1/2 of technology, 1/2 of health, 1/2 for a seminar on work, and 1/2 for a senior independent project on a social issue.

The reports called for improvement in the content of these courses, as well. For example, the National Commission recommended that English in high school should teach students how to comprehend and interpret what they read,

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22/ Boyer, p. 75-76.

how to write, how to engage in discussions of ideas, and how to appreciate the country's literary heritage.

4. Teachers' Working Conditions, Compensation, Training, and Certification

With near unanimity, these reform reports found teachers' working conditions, compensation, training, and certification in need of fundamental change and improvement. Teachers, it was reported, despite the critical role they play in educating youth, are given little responsibility in the educational process and few of the privileges associated with a profession. Their classes are frequently interrupted by, among other things, the public address system; they perform many non-academic chores, such as hall monitoring; they have little time during the day for class preparation; and they teach too many classes and too many students.

Their starting salaries, it was asserted, fall below that of other public employees and decidedly below that of professionals with similarly demanding responsibilities. Boyer noted that, in the 1981-82 school year, teachers with a B.A. were paid a starting salary of $12,769. In contrast, the average starting salary for college graduates with B.A.s in engineering was $22,368; $20,364 for B.A.s in the computer sciences; $17,220 for B.A.s in sales-marketing; and $15,444 for B.A.s in the liberal arts. 23/ Reportedly, the salary schedule for teachers peaked earlier and below that for other

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23/ Ibid., table 14, p. 166.

professionals, forcing some teachers to take second jobs to supplement their salaries, leave teaching for other professions, or move into school administration.

Most of these reports advocated significant increases in base salaries and creation of career ladders for teachers with higher salary levels for more senior teachers who would act as mentors for junior colleagues.

The reports criticized teacher training programs offered by colleges for their undue attention to teaching methods and too little concern for students' mastery of subject matter. They generally recommended that teachers major in a field other than education, and programs should be designed to attract better students to teaching. Most of the report makers observed that teacher candidates come largely from the lowest scoring quartile of college students.

Certification requirements should be strengthened, according to the reports, requiring passage of teacher competency tests before employment, training focused on subject matter competence, and periodic reassessment of teachers during their careers. In addition, many of the reports called for alternative approaches to certification, like "temporary" certification, to permit the filling of teaching positions with subject matter experts from, for example, business or the ranks of the retired.

5. Leadership by Principals and Teachers

Teachers and principals occupy critical places in the educational process, and, according to these reports, do not have the authority to control their

environment or to make key decisions about how to meet academic standards set by State and local authorities.

The reports recommended that principals be trained to administer their schools, that they be in charge of the educational program at their individual schools, and that teachers have a greater role in making decisions regarding the education offered in their schools (for example, one report calls for an expanded role for teachers in textbook selection).

6. Partnerships

Most of the reports saw schools as isolated from institutions and groups in their local community, perhaps none more important than private business. High schools, the reports claimed, fail to draw upon the expertise and financial resources in the business community and elsewhere outside the school. At the same time, high schools did not prepare students for the mental and social demands of the world of work.

The reports proposed partnerships between schools and business to bring business resources to bear on educational problems. Business, some of the reports recommended, should be encouraged to help schools address the problems of teacher shortages and the low quality of teacher candidates by sharing their expert personnel, or by hiring high school teachers during summers to provide them with additional compensation and needed training.

B. Principal Differences

These reports differed among themselves in a variety of ways. This subsection focuses on three of the issues that separate these reports:

(1) educational process;

(2) influences on students' achievement that come from outside of the classroom; and

(3) the locus of control for school reform.

The variation among these reports on these issues has implications for the nature of the recommendations each had to make.

1. Educational Process

All acknowledged the importance of the interaction between student and teacher; but only some reports considered in detail how that interaction occurs, and why it occurs the way it does. The Goodlad, Boyer, and Sizer reports offered more complete pictures of what transpires in schools and what an improved teaching process would be like. Significantly, their reports were based on detailed in-class observations at a variety of schools across the country. The relatively prolonged exposure to the educational processes in schools may account in part for their depiction of complex interactions in need of change. In contrast, other reports considered in this paper derived their findings primarily from papers and testimony presented to the report makers.

For example, the National Commission on Excellence in Education's findings on teaching focused not on how teachers taught in high schools, but on the academic abilities of individuals entering teaching, the emphasis given to "educational methods" in teacher training programs, teachers' poor working conditions, and shortages in certain academic fields. As a result, the Commission recommended that teachers should "demonstrate an aptitude for teaching," that there be incentives for attracting more able individuals to teaching, and that salary schedules should reward superior teachers.

The complaints about teaching in the Goodlad, Boyer, and Sizer reports have a specificity lacking in those from the National Commission on Excellence in Education or the Education Commission of the States' Task Force. To Goodlad, it was not simply a matter of inadequately prepared teachers drawn from a low-scoring group of college students, the problems in teaching emerged from his analysis of the common practices in the classroom--teachers generally dealt with classes as a whole; engaged in "either frontal teaching, monitoring students' seat-work, or conducting quizzes;" seldom permitted students to learn from each other or initiate activities with teachers; infrequently praised or corrected students; and limited students to a circumscribed set of activities (listening, writing responses to questions, and taking tests). 24/

From these conclusions, Goodlad delineated the kinds of steps that could be taken to improve teaching, identifying effective techniques that can be taught to teachers and approaches to high school academic instruction that would address students' need for concrete experience as part of the learning process.

2. Influences From Outside the Classroom

Only some of the reports focused in detail on the forces outside the classroom walls that affect what transpires within them. The Goodlad, Boyer, and Sizer reports, much more than the others under analysis, asserted that reforms of schools cannot succeed unless they are sensitive and responsive to

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24/ Goodlad, p. 123-125.

the forces that affect youth in general. Some of the other reports suggested that the very effort to address students' nonacademic need contributed to decline in academic performance. 25/

Boyer asserted, that for many teens the high school is a refuge from the pressures in the outside world. The institution not only attempts to educate students affected by these pressures and changes, but often attempts to address students' non-academic needs. Sizer emphasized that school reform entailed being sensitive to that which motivates much of teenagers' behavior in school. Teens want to earn a diploma and gain respect (self-respect and respect from others). High schools should capitalize on those incentives for action. Schools make attendance the condition for award of the diploma when they should make subject matter mastery the requirement. They seek docility from teens when they should give them responsibility and a "personalized" educational experience.

The forces, other than their own adolescence, that affect high school students and their performance in school, include, according to these reports, social unrest, war, changing social mores, television, and the increased availability of drugs. Boyer observed that the structure of the family has changed in recent decades--by the time they graduate from high school,

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25/ The authors of A Nation At Risk, for example, assert that the commitment to quality education was "compromised" by "the multitude of often conflicting demands we have placed on our Nation's schools and colleges. They are routinely called on to provide solutions to personal, social, and political problems that the home and other institutions either will not or cannot resolve. We must understand that these demands on our schools and colleges often exact an educational cost as well as financial one." (p. 6) The message appears to be that schools must be recommitted strictly to children's academic needs and different agencies must assume responsibility for the other aspects of their lives.

approximately 1 out of every 2 first-graders will have resided in a one-parent household.

The recommendations that emerged from this sensitivity to high school students' adolescence and the exogenous forces affecting their performance stressed flexibility in school settings and structures to meet students' differing and unique needs. To a greater degree than for most of the other reform reports, the Boyer, Goodlad, and Sizer reports called for creation of, among other things, schools-within-schools to help personalize the educational process for students, dropout prevention programs, reentry programs for dropouts, and alternative schools offering special assistance to students experiencing difficulty in regular schools settings.

3. Locus of Control

The question of where school reform should be based and how much it should translate into State control over an increasingly large part of the educational process has emerged as an important issue lately as analysts consider the activity the reform reports may have engendered. Some of the reform reports, such as A Nation At Risk or Action for Excellence from the ECS Task Force, encouraged increased State-level action. Others, such as those from the National Science Board Commission or the Twentieth Century Fund Task Force, addressed most of their recommendations to the Federal Government. Finally, others, Goodlad's and Sizer's reports primarily, stressed the role of local initiative for school reform.

The differences among the reports on this issue can be highlighted by contrasting its treatment by the Education Commission of the States' Task Force and by Sizer in Horace's Compromise. The Task Force, while describing Federal, State and local roles in reforming education, called for greater State direction of schooling. Each governor was to prepare an "action plan" for school improvement which would establish specific targets for school improvement. These plans should also mandate a schedule for improvement and establish the precise measures to be used to gauge that improvement. 26/

Sizer, in stark contrast, warned that fundamental reform cannot be expected if mandated from the top down. Schools, he wrote, are governed by bureaucratic hierarchies, with direction moving from the peak of the hierarchical pyramid down. He warned that this arrangement was "getting in the way of children's learning." 27/ One of his "imperatives for better schools" directly addressed this issue, calling for "substantial authority" for individual schools to chart their own course. "For State authorities, it demands the forswearing of detailed regulations for how schools should be operated. It calls for the authorities to trust teachers and principals. . . . This trust can be tempered by judicious accreditation systems, as long as these do not reinfect the schools with the blight of standardized required practice." 28/

26/ Task Force, p. 34.

27/ Sizer, p. 206

28/ Ibid., p. 214.

IV. REACTIONS TO THE REPORTS

The reports generated nationwide interest in education. Indeed, this focusing of attention may be one of the reports' most important contributions to educational improvement. 29/ This section assesses the responses at the Federal, State, and local levels. The reform packages enacted in three States--California, Florida, and Texas--are delineated in some detail, partially to provide a contrast to the Federal response of the past 3 years.

29/ The reports were not without their critics. Paul Peterson, who prepared a major background study used in development of the Twentieth Century Fund's Making the Grade, concluded that the early 1983 reform reports failed to meet traditional standards applicable to policy analysis. According to Peterson, "they reassert what is well-known, make exaggerated claims on flimsy evidence, pontificate on matters about which there could scarcely be agreement, and make recommendations that either cost too much, cannot be implemented or are too general to have any meaning." ("Did the Education Commissions Say Anything?", The Brookings Review, winter 1983) Stedman and Smith, in another critique of the early reports, asserted that these reports relied on inadequate data, offered simple solutions to complex problems, failed to take into account important factors directly influencing academic performance, and did not address the needs of minority and economically disadvantaged students. (Lawrence C. Stedman and Marshall S. Smith, "Recent Reform Proposals for American Education," Contemporary Education Review, fall 1983) Nevertheless, the authors of both of these reviews suggest that the reform reports served a valuable purpose by heightening public concern for education, perhaps increasing the possibility of successful reform.

A. Federal Responses

The Federal involvement included the appointing of the National Commission on Excellence in Education, President Reagan's calls for school reform by States and localities, the Secretary of Education's program to identify exemplary high schools, and enactment of relatively small Federal programs to support improvement.

Relevant congressional action actually predates the final release of the reform reports. The issue of shortages of qualified math and science teachers in the Nation's schools had prompted the Congress to develop legislation, which passed the House in March of 1983. Significantly, this action was characterized in terms similar to those used in the reform reports--the math and science teaching problems "threaten to compromise America's stature in the international marketplace, further weaken our industrial base, and undermine our national defense." 30/

In that math/science legislation, finally enacted as the Education for Economic Security Act at the end of 1984 (P.L. 98-377), the Department of Education is authorized to administer a program to help meet the needs of local educational agencies for teacher training in math and science, and, if such needs have been met, for computer instruction, foreign language instruction, and instructional materials. Although funded at $100 million for FY 1985, Congress appropriated only $45 million for FY 1986, a drop in funding attributed by some to concern that the Department of Education was unable to

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30/ U.S. Congress. House. Emergency Mathematics and Science Education Act. House Report No. 98-6, Part 1, 98th Cong., 1st Sess. Feb. 17, 1983. p. 14.

delineate how the FY 1985 funds were being used and how FY 1986 funds would be used. 31/ "Gramm-Rudman-Hollings" (P.L. 99-177) reduced the FY 1986 appropriations to $43.1 million.

Other Federal programs that have a school reform focus and post-date the reports include the Excellence in Education Act (Title V of the Education for Economic Security Act), authority for a National Summit Conference on Education (P.L. 98-524), the Carl D. Perkins Scholarship program (added to the Higher Education Act by the Human Services Reauthorization Act, P.L. 98-558), the National Talented Teacher Fellowship program (added to the Higher Education Act by the Human Services Reauthorization Act), the Leadership in Education Administration Development Act of 1984 (Title IX of the Human Services Reauthorization Act), and the Federal Merit Scholarship program (added to the Higher Education Act by the Human Services Reauthorization Act). The last program was renamed the Robert C. Byrd Honors Scholarships by the Department of Defense Authorization Act, 1986 (P.L. 99-145). The three programs that received funds in 1986 are described below.

The Excellence in Education program authorizes funding for competitive awards to local educational agencies to foster excellence in individual schools. Eligible activities include improvement in secondary school curricula, strengthening of attendance policies, exploration of alternatives to the standard school day and term, and experiments with incentives for outstanding teacher performance. The Congress appropriated $5 million in

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31/ U.S. Congress. House. Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriation Bill, 1986. House Report No. 99-289, 99th Cong., 1st Sess. Report to Accompany H.R. 3424. Sept. 26, 1985. p. 116-117.

FY 1985 for this program and $2.5 million for FY 1986. Efforts were made both by the Administration and within Congress to cut the FY 1986 funding entirely because, it was argued, the program duplicated the current education block grant. 32/ "Gramm-Rudman-Hollings" reduced the FY 1986 level to $2.4 million.

The Carl Perkins Scholarship program will provide scholarships to a maximum of 10,000 academically able high school graduates (determined in part on the basis of being ranked in the top ten percent of their high school graduating classes) to pay for college costs in exchange for service as teachers. These scholarships of $5,000 annually per recipient for up to 4 years require recipients to provide teaching service within 10 years of graduation. For every year of assistance, recipients must provide 2 years of teaching in public elementary and secondary schools or 1 year of teaching low-income, handicapped, or limited-English proficient children in public or private elementary or secondary schools. The Congress appropriated $10 million for FY 1986 for this program. "Gramm-Rudman-Hollings" reduced the FY 1986 level to $9.6 million.

Finally, for FY 1986, the Congress approved $7.5 million in first-time funds for the Leadership in Education Administration Development Act. "Gramm-Rudman-Hollings" reduced this level to $7.2 million. LEAD supports technical assistance centers in each State to improve public school administrators' leadership skills, helping them to strengthen the learning environment in their schools, make judgments about curricular issues, evaluate and improve teacher

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32/ U.S. Dept. of Education. FY 1986 Budget Justifications. p. 128; Kurtz, Howard. Sharpening the Budget. Washington Post, Sept. 19, 1985. p. A21.

performance, communicate effectively, engage in problem-solving, enforce discipline, manage time, and budget finances. Each center will be funded for a 3-year period and be required to match Federal funds on a dollar for dollar basis. An additional 3 years of support for the same level of activities could be provided, but only with a 50 percent reduction in LEAD funding to the individual center.

Turning to the executive branch, one finds that the President admonished States and localities to adopt certain of the recommendations, principally merit pay for teachers and career ladders for teachers. Secretary of Education Bell convened a series of regional panels to consider A Nation At Risk, culminating with a national conference addressed by the President.

Secretary Bell initiated the Secondary School Recognition program that for the school years 1982-83, 1983-84 and 1984-85 identified high schools and junior high schools "unusually effective in meeting the needs of their students." 33/ For the 1984-85 school year, the program identified exemplary private schools as well. Costs for this action appear to have been several hundred thousand dollars a year, although the FY 1984 costs for the program came to more than $800 thousand dollars, nearly half to identify private schools. Secretary of Education Bennett, Bell's successor, has continued the program, expanding it for the 1985-86 school year to include elementary schools.

The Department of Education has funded other, relatively small projects to support the reform effort. For example, the Department made grants to State

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33/ U.S. Department of Education News. June 30, 1983.

and local educational agencies for the development of merit pay programs, career ladders, and nonsalary recognition of meritorious teachers. 34/

In summary, Federal action to date on school reform has been at the margin at best. Given the funding experiences of the math/science program and the Excellence in Education program, one might be concerned about even this level of support. Indeed, the additional budget reduction that may be required in response to "Gramm-Rudman-Hollings" could still further reduce that financial commitment.

B. State Responses

In the context of the reform era, education in America can be viewed as a series of paradoxes. The tradition has been for the 50 separate States to take great pride in the autonomy and independence of their educational systems, but all operate K-12 graded educational programs, all rely upon the same publishers for textbooks, all require a bachelor's degree for the full certification of teachers, and all have relatively similar school day and year requirements. In contrast, however, State systems for funding schools vary widely from heavy to virtually no reliance on the property tax to support schools and from complex funding formulas based on differences in the educational needs of students, local wealth, and citizen aspirations to simple ones that allocate "X" dollars per student or teacher.

34/ Federal Register, Feb. 4, 1985. p. 4881-4884. The funds involved are authorized under Chapter 2 of the education block grant (Chapter 2 of the Education Consolidation and Improvement Act, P.L. 97-35) for discretionary projects administered by the Secretary of Education.

Administratively, policy in most all local school districts is set by lay citizen school boards, and the schools are administered by a professionally trained superintendent of schools; however, the number of school districts in a State and the ranges in enrollment among districts reflect the impact of the tradition of State and local control of schools. (Variations in the number of local school districts are shown in table 2.)

TABLE 2. Number of School Districts, Expenditures, Level of Effort, and Staffing Data for Selected Reform States

State	Number of districts	Current expenditures per pupil (1983)	Current educational expenditures per $1000 personal income	Pupils per teacher
Arkansas	371	$1,998	$43.7	18.2
California	1,033	2,735	35.3	24.0
Florida	67	2,923	37.3	18.1
Georgia	187	2,155	41.3	18.6
Illinois	1,010	3,018	40.2	18.3
Kentucky	180	2,368	46.2	20.2
Missouri	548	3,296	51.9	17.0
New York	722	4,434	54.2	15.9
South Carolina	92	2,080	45.2	18.8
Tennessee	147	2,061	40.8	21.1
Texas	1,075	2,820	47.3	17.7
Utah	40	2,080	54.7	24.2
Nat. Average		$2,960	44.9	18.5

Sources: Rankings of the States, National Education Association; and Digest of Education Statistics, Department of Education.

As might be expected from this confusing pattern of diversity and uniformity, educational conditions were quite different among the States as the current reform movement began to take shape in 1983. To illustrate some of these differences, table 2 contains four sets of data for 12 States that typically are listed among the reform States. Of the 12 States, all except Illinois, Missouri, and New York were below the national average in expenditures per pupil in 1983. Further, in that year, half of these "reform" States were below the national average in effort for public elementary and secondary education. In this illustration, effort is expressed in terms of elementary and secondary educational expenditures per $1000 of personal income. When States' averages of the number of enrolled pupils per teacher were compared, the numbers for California, Georgia, Kentucky, South Carolina, Tennessee, and Utah were above the national average. These data illustrate the differences in levels of efforts among the States when the reports were issued, and suggest that some of the "reform" States, particularly California and Florida, could fund expensive visible reforms and still be making less than the national average level of fiscal effort for their schools. 35/

During this most recent period of reform at the State level, there has been a process of assessment and then subsequent reform action. Over 275 commissions and task forces formed in the States for the sole purpose of reporting on the condition of education within their States and making

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35/ See also, Odden, Allan. Sources of Funding for Education Reform. Phi Delta Kappan, Jan. 1986. p. 335-340.

recommendations for improvement. 36/ Although many of these recommendations failed to be enacted, many others were. The analysis below highlights the reforms most often adopted by States and the reform packages enacted in California, Florida and Texas.

1. Popular Reforms

The most popular reform actions responsive to the reports appear to include strengthening high school graduation requirements, increasing student testing and evaluation, tightening teacher evaluation and certification procedures, and modifying teacher compensation schedules. 37/ In the discussion below of the extent of State action in these areas, examples of specific reforms undertaken by individual States are provided. These serve to suggest the kinds of action in these different categories.

a. Graduation requirements. As surveyed in 1984, 35 States had taken steps to increase high school graduation requirements and another 13 States

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36/ U.S. Dept. of Education. The Nation Responds: Recent Efforts to Improve Education. May 1984. p. 15.

37/ U.S. Dept. of Education, The Nation Responds; and Education Week. Changing Course: A 50-State Survey of Reform Measures. Feb. 6, 1985. (These surveys are best used for gaining a sense of the activity that has taken place. At times their results are contradictory. Often the specific categories used to group reforms are not the same.)

were debating such action. 38/ By 1985, a total of 43 States had revised graduation requirements.

As one example of this State-level reform of graduation requirements, Wisconsin in 1984 put in place its first State-level high school graduation requirements. Effective June 1989, students will have to take, as a condition for graduation, 4 years of English, 3 of social studies, 2 years of science, 2 years of math, 1 1/2 years of physical education, 1/2 year of health, and 1/2 year of computer science. 39/

b. Student testing and evaluation. By 1984, 29 States had increased the amount of student testing and evaluation, and 13 contemplated doing so. Few additional States had acted in this area by early 1985.

Arkansas' Competency Based Education Act of 1983 offers an example of action on student testing and evaluation. The law, expanding on an extant competency testing program, provides that all students in the 3rd, 6th, and 8th grades are to take basic skills tests. Students in the 3rd grade are tested in reading and math; students in the 6th and 8th grades are tested in reading, math, science, social studies and language arts. Third and 6th graders failing to pass the tests receive assistance from "academic skills plans." Failure at the 8th grade (on the initial or two subsequent administrations of the test)

38/ It must be stressed that these data and others listed below concerning State reform action often include steps taken in the 3 or 4 years prior to the release of the reform reports in 1983 and 1984.

39/ Department of Education, The Nation Responds, p. 138-141. (Previously, in Wisconsin, local school boards set high school graduation requirements. (National Association of Secondary School Principals, State-Mandated Graduation Requirements, 1980.))

results in a denial of promotion to the 9th grade and in assistance from "academic skills plans." The law also requires any school or school district with fewer than 85 percent of students passing the basic skills tests to enter a "school improvement program" developed by the State educational agency. If a school district fails to meet the 85 percent standard for two years it may lose its State accreditation. 40/

c. Teacher preparation and certification requirements. Twenty-eight States by 1984 had tightened teacher preparation and certification requirements, and another 19 were considering such action. By early 1985, some 38 States had acted to require teacher competency tests, to revise their certification requirements or to raise education-school standards. One aspect of these reforms is the increased testing of would-be teachers. A recent survey by the Education Commission of the States on States' teacher policies shows that, at present, 29 States administer tests to students as a condition of entry to teacher training programs and 35 require passage of a test to graduate from such programs. 41/

Virginia offers one example of a State that has moved to address perceived shortcomings in its teacher preparation and certification requirements. The State Board of Education now requires that beginning teachers receive a provisional certificate with a 2-year duration, during which time they will be monitored and evaluated. Those performing successfully can then receive a

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40/ Arkansas Department of Education. 1983 Special Supplement to the School Laws of Arkansas. No date.

41/ Pipho, Chris. Quantity vs. Quality: States Aim To Improve Teaching and Teachers. Phi Delta Kappan, Jan. 1986. p. 333-334.

regular teaching certificate. Starting teachers are required under law to achieve certain scores on the National Teacher Examination. In addition, the State Board requires that admission requirements to teacher education programs must be at least the same as those for other higher education programs. 42/

d. Teacher compensation schedules. Certain reforms, such as changes to teacher compensation schedules, that had not been widely adopted by States in mid-1984, had increasing numbers of converts by early 1985. In 1984 only 6 States had enacted master teacher or career ladder programs; in early 1985, some 14 had. In 1984 about 14 States had increased teacher salaries; by 1985, some 18 had done so.

Tennessee's Career Ladder program offers an example of this kind of State action. The Career Ladder program, part of the State's Better Schools program, is one of the most widely discussed teacher reforms in the country. The program provides teachers with five career levels:

> probationary--this certificate is for first-year teachers who must have completed a college program and achieved an acceptable mark on the National Teacher Exam;
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> apprentice--this certificate for those who have successfully completed the first year of teaching is nonrenewable and awarded for a 3-year period;
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> career level I--for those successfully completing the apprentice level, this certificate is renewable and awarded for a 5-year period;
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> career level II--awarded upon completion of a minimum of one 5-year period as a career level I teacher and meeting State level evaluations, this certificate is renewable and valid for 5 years; and

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42/ The Nation Responds; American Association of Colleges for Teacher Education. Teacher Education Policy in the States: 50-State Survey of Legislative and Administrative Actions. 1985.

career level III--awarded upon completion of a minimum of one 5-year period as a career level II teacher and meeting State level evaluations, this certificate is renewable and valid for 5 years.

State salary supplements are provided for the three career levels--$1,000 for I; $2,000 or $4,000 for II (depending upon selection of a 10-month or 11-month contract); and $3,000, $5,000 or $7,000 for III (depending upon selection of a 10 month, 11 month or 12 month contract). Career level I teachers may work with student interns and probationary teachers. Career level II teachers may work with different groups of students included the gifted and those in need of remediation, or they may aid apprentice teachers. Career level III teachers may have assignments similar to those at career level II and, in addition, may work with career level I teachers. 43/

2. State Reform Packages

To give a somewhat different perspective on State reform, and to provide a comparison to the Federal response described earlier, the paragraphs below summarize the reform packages adopted in 3 States--California, Florida, and Texas. These are among the States most often cited as reform leaders. The following descriptions delineate how each set of reforms has unique features apparently responding to the perceived needs of each particular State. In addition, it is clear that State-level reform can be expensive.

43/ Tennessee Department of Education. Teacher Orientation Manual. 1985.

a. California. 44/ In California, the reform legislation of 1983, SB 813, addressed a variety of issues, such as school funding; teachers' incentives, compensation and dismissal; student performance and standards; and the length of the school day and year. SB 813 was funded for 1983-84 at about $900 million and at about $1.3 billion for 1984-85. 45/ The legislation permits local districts to increase teachers' salaries by 10 percent a year over a 3-year period to reach a minimum entry level salary of $18,000. Districts can select teachers to act as mentor teachers to assist in developing curriculum or in monitoring entry level teachers with an annual bonus for such service of $4,000. In addition, districts can fill teacher shortage slots with candidates who may not meet current certification requirements but who do meet other requirements such as satisfactory scores on the California Basic Education Skills Test. The legislation provides college loans with a teaching payback provision to students being trained to teach in shortage areas. Dismissal procedures are modified to give districts greater flexibility in firing teachers.

The legislation addressed student performance standards by requiring that, as of June 1987, all high school graduates will have taken 3 years each of English and social studies, 2 years each of math and science, 1 year of fine arts or a foreign language, and 2 years of physical education. The State is to

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44/ U.S. Dept. of Education, The Nation Responds; Education Week, 50-State Survey; Cuban, Larry. School Reform By Remote Control: SB 813 in California. Phi Delta Kappan, Nov. 1984. p. 213-215; and Hawkins, Robert B. Education Reform California Style. Publius, summer 1984. p. 99-109.

45/ Fallon, Michael. California Lawmakers Raise School Aid $338 Million. Education Week, June 6, 1984. p. 5; and Education Week. Lawmakers Fund Reform Drive With Tax Bills, Major Policy Moves. Aug. 26, 1984. p. 21-22, 30.

administer the Golden State High School Achievement Tests to determine high school graduation honors. The State also now provides financial awards to high schools for improvements in student achievement. The legislation made funds available for specialized high schools in technology and the performing arts, as well as for summer school programs in math and science. Finally, State funds are provided to districts that choose to lengthen the school year or school day.

b. Florida. 46/ In Florida, much the same set of issues as in California was addressed by the major reform legislation enacted in 1983. One estimate put the amount of increased State funding associated with the 1983 legislation at $100 million. 47/ High school graduation requirements were increased in stages--effective for the 1984-85 and 1985-86 school years, each high school graduate had to complete 22 academic credits in grades 9 through 12; 3 of those credits had to be in math and 3 in science. For 1986-87, 24 credits will be required, reportedly the highest in the Nation. Each local school board is required to establish graduation standards that include student mastery of minimum skills in reading, writing, and math at the 11th grade level and passage of a functional literacy examination. Students also now have to have a 1.5 grade point average (on a 4 point scale) in order to participate in

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46/ U.S. Dept. of Education, The Nation Responds; Education Week, 50-State Survey; State of Florida Department of Education. Legislative Report #13. Final Report. Aug. 8, 1983; and State of Florida Department of Education. The 1985 Annual Report of the Commissioner of Education: Getting Ready for 1989.

47/ Odden, Allan. Sources of Funding for Education Reform. Phi Delta Kappan, Jan. 1986. p. 339.

interscholastic extracurricular activities. The State will pay each school district more funds under its education finance program for students who receive a score of 3 or higher on the College Board's Advanced Placement Examination (a 5 point scale with 5 at the top).

Turning to teachers, the Florida legislation provides that individuals who lack the required education courses can teach in the schools if they have skills in academic areas in which there is a teacher shortage. Scholarships with a service payback requirement are available to students in teacher training programs in critical shortage areas; the State will also pay off teachers' Federal student loan debt. Perhaps the most publicized action was creation of the Master Teacher program with two new salary levels labeled associate master and master. These new levels carry with them salary increments of $3,000 and $5,000 respectively, but apparently impose no additional duties. 48/

c. Texas. 49/ Texas offers another example of a State undertaking major reform. Acting on a spring 1984 report from a task force appointed by the Governor and headed by Texas business executive H. Ross Perot, the State legislature in a special session approved House Bill 72. The legislation

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48/ Olson, Lynn. Pioneering State Teacher-Incentive Plans in Florida, Tennessee Still Under Attack. Education Week, Jan. 15, 1986. p. 1, 24-25.

49/ U.S. Dept. of Education, The Nation Responds; Education Week, 50-State Survey; Education Daily. Texas Lawmakers Approve Multibillion-dollar School Reform Plan. July 5, 1984. p. 5-6; O'Connor, Georganne. Texas Governor Signs Sweeping Education Reforms Passed in Special Session of State Legislature. Education Times, July 16, 1984. p. 1, 5; and Texas Education Agency. Texas Public School Finance Plan and Other Provisions: Implementation of H.B. 72, Explanations and Interpretations. July 1984.

includes State tax increases raising over $2.7 billion for reform for a 3-year period. Among the most discussed changes made by the legislation are the following. The State minimum salary for Texas teachers was increased; the entry level went from $11,100 to $15,200 and the maximum went from $21,500 to $26,600. A career ladder with four levels was established, each level providing an additional $2,000 salary supplement.

With regard to students, the legislation increased the number of grades in which Texas basic skills tests are to be administered--now students are tested in grades 1, 3, 5, 7, 9, and 12. Students must pass the 12th grade test to be awarded a diploma. Failure to perform satisfactorily on these tests automatically triggers remedial action by school districts. Student participation in extracurricular activities is brought under new guidelines--receipt of a grade lower than 70 on a 100-point scale in any academic class precludes participation in extracurricular activities for the following 6 weeks grading period. The legislation requires that any school district with at least 15 4-year olds who cannot comprehend English or who are from poverty level families must provide prekindergarten classes.

C. Local School District Responses

In addition to the States, local school districts have been active in school reform. As delineated above, much of that action predates the reform reports, although some was prompted by those reports.

The Council of Great City Schools recently surveyed large urban school districts to identify recent secondary school improvement action. 50/ In 26 such districts, the Council found that some 80 percent recently increased graduation requirements; in 69 percent improvement efforts resulted in increased homework assignments; in 65 percent the time allocated to academic skills increased; in about a third, class period lengths increased. The Council also asked if any of the districts were addressing the needs of special groups of students; about half were doing so, and over a third targeted improvement efforts to educationally disadvantaged students.

50/ Owens, Thomas R. Final Report for the Council of Great City Schools Secondary School Improvement Study. Sept. 1985.

V. IMPLICATIONS OF EDUCATIONAL REFORM

Now that the level of media attention to the reform reports has subsided, and almost 3 years have passed since the release of the early reports, the logical question is: What has been the impact of the reforms on the operation of schools?

The pace seems to have slowed in terms of new State reform. In many States the reform leadership now is engaged in consolidating and implementing the reforms already enacted, defending them against attack, and working to secure adequate funding. Chris Pipho of the Education Commission of the States describes part of this process as "fine-tuning" the education reform laws already enacted. 51/

Along with the fine-tuning comes a new set of problems. These reforms were often adopted with vigorous debate in the first place. Now, as the reforms are being implemented, resistance can continue as it has in, for example, Florida over the teaching reforms enacted there, in Tennessee over its master teacher plan, and in Texas over the tying of extracurricular

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51/ Pipho, Chris. Tracking the Reforms, Part 1: Fine-Tuning Begins. Education Week, Jan. 23, 1985. p. 26.

participation to academic performance. 52/ Also, and perhaps more significantly, these reforms will actually be implemented by the many school districts and schools within the States. As a result, whether the original legislative objectives of these reform efforts will be realized remains to be seen; equally unknown at this time is the response of State legislatures and education agencies seeking to monitor and enforce these reform laws.

Within a complicated political and educational environment, the process of what is referred to as educational reform is taking place. Certain aspects of the reform efforts will dictate the impact reform will have on schools. Six of these aspects are discussed below.

A. Shift in Locus of Power

As the reforms are being implemented, the locus of power appears to be shifting to the State level. In essence, State-level officials are reclaiming power that had previously been assumed by or granted to local school boards and administrators. 53/ As this change is taking place, education appears to be losing some of its special treatment as a publicly supported activity and is

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52/ Olson, Pioneering State Teacher-Incentive Plans; and Bridgman, Anne. Backlash Hits Efforts to Tie Achievement With Extracurriculars. Education Week, Mar. 13, 1985. p. 5, 16.

53/ Caldwell, Peggy. Governors: No Longer Simply Patrons, They Are Policy Chiefs. Education Week, Feb. 6, 1985. p. 1, 34.

being subjected to the same types of scrutiny and controls that are applied to other public services. 54/

As discussed previously, various State actions have been taken to raise standards for school operation, pupil performance, and teacher qualifications. Even though many local school districts may have raised standards voluntarily, the tendency has been for State requirements to be imposed irrespective of the wishes of local school officials. 55/ Michael W. Kirst, professor at Stanford University and former chairman of the California State Board of Education, contends that difficulties may be encountered in implementing mandates because of the diversity of school sites within a State, differences in students and available resources, and variations in the capacity of State education agencies to monitor or provide technical assistance. 56/ The State educational agency's potential ability to perform these leadership roles has been reduced further because reform efforts typically have not been accompanied by increases in either State or Federal funding for the direct operation of State educational agencies. 57/

54/ Katz, Ellis. The States Rediscovered: Education Policymaking in the 1970s. State Government, winter 1980. p. 31-35.

55/ Chion-Kenney, Linda. Top-Down Reforms Rekindle Old Debate for School Boards. Education Week, May 8, 1985. p. 1, 24-26.

56/ Kirst, Michael W. The Changing Balance in State and Local Power to Control Education. Phi Delta Kappan, Nov. 1984. p. 190.

57/ Sirkin, J. R. State Leaders Jousting Over Policy Control in Massachusetts. Education Week, Nov. 20, 1985. p. 1, 14.

A further problem is that local resistance also may emerge because this focus on standardization is contrary to the tradition of diversity that has been associated with the achievements of America's public elementary and secondary schools. 58/

The increasingly active State-level educational policy role is not new in the 1980s, but has been underway for as long as 15 years. As a result of reapportionment, legislators have become more representative of their constituencies. In addition, they have acquired their own staffs. Mid-1980s "education governors" such as Alexander of Tennessee, Clinton of Arkansas, Deukmejian of California, Graham of Florida, and White of Texas were preceded a decade ago by "Pat" Brown of California, Carter of Georgia, Evans of Washington, Milliken of Michigan, and Rockefeller of New York. 59/ This latter group of governors also undertook reform, but the emphasis of their work clearly was on educational access and equity, not excellence.

At the same time when States are increasing their share of power by asserting their prerogatives over local school districts, the role of the States is being enhanced further by the Reagan Administration's efforts to reduce the Federal presence in education. In 1981, as a result of the passage of the Omnibus Budget Reconciliation Act (P.L. 97-35), many nationally competitive categorical programs were replaced by block grants to States and local school districts. This legislation established the chapter 2 education

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58/ Doyle, Denis P., and Chester E. Finn, Jr. American Schools and the Future of Local Control. The Public Interest, fall 1984. p. 87-89.

59/ Katz, p. 33-34.

block grant. Also, despite the positive public attitude toward the Department of Education-sponsored A Nation At Risk, no large new Federal initiatives were proposed by the Reagan Administration. The principal Federal effort is the program to improve math and science instruction in elementary and secondary schools. Total funding for this and the other Federal reform programs described earlier for either FY 1985 or FY 1986 has been less than 1.0 percent of the total budget for the Department of Education.

Even though the Reagan Administration has advocated a reduced Federal role in education, the dearth of substantial Federal action may be more related to the traditional status of education as a State and local function than to lack of Federal interest. In addition, the opportunities for Federal action may be limited in view of the presently active role of States and localities in seeking educational improvement.

B. Limited Change in School Operation

Even though States have imposed various reform requirements on local school districts and individual schools, the likelihood is great that a casual observer would see little difference in the daily operation of a pre-reform and a post-reform school. For example, the Association for Supervision and Curriculum Development has reported that the imposition of more rigorous graduation requirements has not been accompanied by efforts to identify the

content of the additional courses, by programs to upgrade curriculum and instruction, or by funds to accomplish these goals. 60/

Differences in the pre- and post-reform schools, if they exist, likely would be subtle. In some instances, the leadership role for building principals may have been enhanced, and efforts may have been made to bring about greater involvement of teachers in decisions that affect their daily work.

Nevertheless, concerns remain about the "best" ways to organize and operate schools, and about inefficiencies or lack of effectiveness related to school size, but such issues have not typically been addressed in reform efforts. The continuation of the traditional behavior of schools would be in keeping with the experience of earlier reform efforts, which were often thwarted because the schools appear to have a natural resistance to change.

C. Conflict Between Excellence and Equity

Various observers have questioned whether or not the Nation's educational system can retain its emphasis on access and equity for minority and disadvantaged students and simultaneously achieve excellence. 61/ The primary concern has been the impact of reform recommendations on the educational opportunities for disadvantaged students. For example, will these students be provided with remedial and individualized programs, or will they be expected to

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60/ Gold, Deborah L. More Requirements Do Not Make a Better Education, Warns New Report. Education Daily, Oct. 15, 1985. p. 1-2.

61/ Doyle, Denis P., and Terry W. Hartle. Excellence in Education: The States Take Charge. American Enterprise Institute for Public Policy Research. Washington, D.C., 1985. p. 44-46.

meet the higher performance and graduation standards at the same pace and with the same human and material support as students from more advantaged backgrounds? 62/ The Texas experience with the "no pass/no play" rule provides indirect evidence that targeted intervention for disadvantaged students may enable them to meet increased standards. Some Texas schools started remedial programs early and their students did not encounter athletic eligibility problems. 63/

D. Impact of Reform on Teachers

An unknown factor in the reform movement is its impact on teachers. Considerable attention has been given to merit pay, master teacher, and career ladder programs as a means of making teaching more attractive and identifying the best teachers. As techniques for improving teachers, problems with these efforts are two-fold: first, most programs are still in a developmental stage; and second, programs such as the master teacher programs in Florida and

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62/ Belcher, Mary. Get-Tough Policies Lead to Compensatory Education Changes. Education Daily, Aug. 20, 1985. p. 3-4; More Requirements Do Not Make a Better Education, Warns New Report. Education Daily, Oct. 15, 1985. p. 1-2; Robinson, Virginia. Speculations on the Consequences of Increased Course Requirements for Students, Teachers, and Curriculum. Education Times, Oct. 21, 1985. p. 7; and Robinson, Virginia. What Research Has to Say About the Possible Effects of Higher Academic Standards on Marginal Students. Education Times, June 3, 1985. p. 7.

63/ Maraniss, David. Texans Split as 'No Pass, No Play' Kicks In. Washington Post, Oct. 21, 1985. p. A1, A15.

California apparently will benefit only a small percentage of the total teaching force.

At the same time that efforts have been made to upgrade the quality of the teaching force, increasing demands are being placed on practicing teachers. Even with the rhetoric about the importance of the teacher and the need to improve the current teaching staff, funds for staff development and inservice training may not have been increased in sufficient amounts to have a significant impact on practicing teachers. 64/

Efforts to attract more able persons into teaching careers have been limited to a relatively small number of scholarships funded by States, the Perkins Scholarships funded by the Federal Government in FY 1986, and salary increases in about 18 States. Some States and local school districts have established the goal of providing $20,000 as the salary for begining teachers, but these actions do not appear to be sufficient to offset the annual salary gain for those new college graduates who choose jobs in such fields as chemistry, computer science, mathematics, or physical and earth sciences rather than teaching. In 1984, starting salaries of college graduates with technical, mathematical, and scientific training were reported to be $28,000, but starting salaries for teachers reportedly ranged from $12,000 to $14,000. 65/

64/ Robinson, Speculations on the Consequences of Increased Course Requirements.

65/ Massell, Diane. Competing for Scarce Talent. IFG Policy Perspectives. Institute for Research on Educational Finance and Governance. Stanford University, fall 1985. p. 2.

E. Private Sector/School Cooperation

Businesses have become more involved in cooperative ventures with schools through "adopt-a-school" and similar programs. These efforts are more prevalent in urban and suburban areas, or at the State level. Prominent examples can be found in Atlanta, Boston, and Washington. However, the funding for such programs represents only a small portion of total revenues for these schools.

One reason that cooperative ventures should not be viewed as a panacea for educational problems is that isolated rural areas, and especially rural poverty areas, typically do not have local businesses with the interest or the human and financial resources needed to support major cooperative ventures. Further, large national firms tend to target their resources on cooperative ventures of direct interest to the firm. Such activities benefit the schools, but school/business ventures typically provide "risk capital" to supplement basic financial support, rather than become a primary source of funds. 66/

The overriding interests of the private sector are illustrated in a recent report from the Committee for Economic Development. The report suggests that the primary school reform goals of the private sector are to improve the productivity of the workforce, enhance the Nation's relative position in international economic competition, and increase the economic power of the consumer. 67/

66/ Doyle and Hartle, p. 60.

67/ Committee for Economic Development. Investing in Our Children: Business and the Public Schools. 1985.

F. Conflict in Reform Goals

Even though the reform reports contain several common themes, it would be inappropriate to assume that their recommendations are mutually complementary. They differ in their implications for the professional role of the teacher, their assumptions about optimal approaches to teaching and learning, and their perceptions of the merits of reliance on externally-imposed requirements and mandates. 68/

The education reform dilemma concerning top-down mandates was possibly summarized best by Doyle and Hartle who suggested that the challenge confronting policy makers and school personnel, at all levels, was to identify the delicate balance that will permit individual schools to have a responsible level of operational flexibility and, at the same time, permit the State to exercise the level of control needed to protect and promote the public interest. 69/

This same tension affects the Federal role in education reform. Although the current Federal response to the perceived need for educational improvement reflects the continuing influence of the budget deficit, it also results from the traditionally limited role of Federal involvement in education. Significantly, the reform efforts have focused on issues, such as teacher

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68/ Doyle and Hartle, p. 60.

69/ Ibid., p. 54-55.

compensation and high school graduation standards, that are critical, internal aspects of school operation. The appropriateness of Federal action on these issues might be questioned, as might their necessity, given the degree of State and local action to date.

APPENDIX

In this appendix, the seven reports considered in the text of the report are summarized, focusing on how each characterized the condition and goals of American education, what reforming steps each recommended, and what the roles of different levels of government should be in the reform process.

A. A Nation At Risk--National Commission on Excellence in Education

On April 26, 1983, the National Commission on Excellence in Education, chartered by then Secretary of Education Bell in 1981 with the task of examining the quality of American education, issued A Nation At Risk: The Imperative for Educational Reform.

1. Condition

The Commission concluded that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people." 70/ The Commission found that the high school curriculum is diluted and diffuse, lacking a central purpose. High

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70/ National Commission on Excellence in Education, p. 5.

school students reportedly are found increasingly in general track programs, rather than vocational or academic tracks. Standards and expectations in high school were characterized as low and limited. At the time of the report, no State required foreign language study as a condition for high school graduation; 35 required only 1 year of math; and 36 required only 1 year of science. The Commission reported that students' time is spent ineffectively and inefficiently. U.S. students, the Commission reported, are in school much less than their counterparts in other countries (6 hours a day for 180 days a year compared to 8 hours a day for 220 days a year in some other industrialized countries). The Commission found that teaching attracts an insufficient number of academically able persons; important fields experienced shortages; teacher preparation is poor; and the teachers' professional life is "on the whole unacceptable."

2. Goals

The report's wide-ranging preamble to its findings and recommendations identified several goals for education in this country. Quality education for all members of the society is essential for maintaining the Nation's competitive edge in international economic markets, and for success in the so-called "information age." A well-educated citizenry, the Commission counseled, is the underpinning of a free and democratic society, and important for fulfilling this country's promise that all of its people would have their talents developed to the fullest.

3. Recommended Changes

The Commission's recommendation addressed five areas--curriculum, standards, time in schools, teaching, and educational leadership. With regard to the curriculum, the Commission recommended that a high school diploma be granted only to students who take, at a minimum, 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, and a half year of computer science. Two years of foreign language study was recommended for those students intending to go to college.

According to the Commission, standards must be raised and high expectations applied to students' academic performance and conduct. Among the steps the Commission advocated was that 4-year colleges raise their admissions standards and notify all prospective applicants of that fact. The academic performance of high school students, it was thought, would change as a result.

Time in school should be spent more effectively, as well as increased by lengthening the school day or the school year. The Commission also recommended that more homework be assigned; that rules of conduct be more rigorously enforced; and that academic progress, not age, be the basis of placement, grouping, promotion, and graduation.

The Commission made a 7-part recommendation concerning teaching, calling for higher salaries that would be sensitive to market demands and teacher performance. Also, career ladders should be developed, distinguishing among beginning, experienced, and master teachers.

With regard to leadership, the Commission recommended that educators and elected officials be held responsible for pursuing these needed educational reforms, and that "citizens" should provide the necessary fiscal support.

4. Federal, State, and Local Roles

The Commission distinguished the State and local roles from the Federal role. States and localities "have the primary responsibility for financing and governing the schools, and should incorporate the reforms . . . in their educational policies and fiscal planning." 71/ The Federal role, on the other hand, is to "identify the national interest in education. It should also help fund and support efforts to protect and promote that interest." 72/ The Federal Government also, according to the Commission, has a responsibility for special groups of children--the gifted, the socioeconomically disadvantaged, minority group children, children whose primary language is not English, and the handicapped.

B. Making the Grade--Twentieth Century Fund Task Force

The Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy issued its report shortly after that of the National Commission. The Twentieth Century Fund is an independent research foundation. The report considered primarily the Federal role in securing educational reform; as a result, those educational areas for which the Task Force believed there was indeed a Federal role received the Task Force's attention.

71/ Ibid., p. 33. (Emphasis in original.)

72/ Ibid.

1. Condition

The Task Force asserted: "The Nation's public schools are in trouble. By almost every measure--the commitment and competency of teachers, student test scores, truancy and dropout rates, crimes of violence--the performance of our schools falls far short of expectations." 73/ The schools reportedly failed to educate and to motivate.

2. Goals

Schools, according to the Task Force, must impart a common core of knowledge to all students. This common core consists of reading, writing, and calculating; "technical capacity in computers;" science and foreign language; and an understanding of civics. Schools are responsible, according to the Task Force, for providing the skills and capabilities necessary for sustaining the economy, and for generating the knowledge and attitudes necessary for the functioning of a constitutional democracy.

3. Recommended Changes

The Task Force directed its recommended changes to Federal action. There should be a federally funded Master Teacher program that would provide the best teachers in the country with 5-year financial awards ($40,000 a year was suggested). The first year would be spent in professional improvement; the remaining four would be spent teaching, perhaps assisting other teachers. This

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73/ Twentieth Century Fund Task Force, p. 3.

program would encourage the wider use of merit-based salaries and promotion policies for teachers. Its cost was an estimated $5 billion over its first 5 years.

The Federal Government, the Task Force recommended, should set English language literacy as the principal goal for elementary and secondary education. Federal bilingual education funds should be used to teach English to non-English speaking children, not to encourage competence in a foreign language. Nevertheless, the Task Force posited that every public school child should have an opportunity to learn a second language. To that end, it recommended a matching grant program to train foreign language teachers.

Scientific literacy for all citizens and advanced training in math and science for high school students should be a Federal emphasis, according to the Task Force. It also recommended incentives to increase the number of math, science, and foreign language teachers, based perhaps on an educational loan forgiveness program for prospective teachers.

The Task Force called for the continuation of Federal categorical grant programs for economically disadvantaged children and the handicapped. The Federal "impact" aid program should be reformulated to aid school districts with substantial numbers of immigrant children, particularly economically depressed school districts.

Federal research efforts should be continued and directed to collecting information on such topics as educational performance and evaluation of Federal programs. Research into how children learn should be provided with greater Federal resources.

Finally, the Task Force recommended that, for children who appear to be failing in the traditional public schools, special Federal "fellowships' should

be awarded to enable public school districts to provide specialized programs operated as "small academies."

4. Federal, State, and Local Roles

The Task Force stated that "educating the young is a compelling national interest, and that action by the Federal Government can be as appropriate as action by State and local governments." 74/ The Federal Government is to continue assisting the disadvantaged as well as to take a primary role in meeting the need for educational quality. The expression of this Federal role should be through incentives, rather than the kinds of regulations and mandates that in the past, according to the Task Force, encouraged the growth of educational bureaucracies and required the reallocation of scarce State and local funds. The Task Force stressed its opposition to a national education policy usurping the areas properly handled by State/local school boards and educators, areas such as the curriculum, teacher qualifications, and the length of the school day. The Task Force rejected a Federal role in fostering educational choice through policies designed to facilitate use of private education, such as tuition tax credits. Other Federal activities endorsed by the Task Force are described above in the discussion of recommended changes.

74/ Ibid., p. 6.

C. Action for Excellence--National Task Force on Education for Economic Growth

On June 22, 1983, the National Task Force on Education for Economic Growth, established by the Education Commission of the States in December 1982, released a report entitled Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools.

1. Condition

The Task Force drew attention to what it called deficiencies in public elementary and secondary schools. First, student achievement was characterized as poor. Despite gains in basic skills achievement recorded by black students and other disadvantaged children, the Task Force asserted that there had been a decline in recent years in higher order thinking skills, such as problem solving. Second, a "teacher gap" exists in terms of the quantity and quality of teachers. At the time of the report, an estimated 26 percent of all math teaching positions were filled by persons uncertified or provisionally certified to teach that subject. Third, the Task Force found serious curricular deficits. Curricular materials for science, developed with funds from the National Science Foundation in the 1960s, are obsolete; and little time is spent weekly on science and math in the typical elementary school (1 hour and 4 hours, respectively, out of 25 hours weekly of instructional time). Fourth, the Task Force concluded that schools have management and leadership problems. For example, principals are unduly diverted from their educational management tasks. Finally, the Task Force posited that perhaps the country's

greatest educational deficit is a lack of consensus about how to improve our schools.

2. Goals

The Task Force asserted that improved education and training are essential for economic growth, the national defense, and social stability. The Nation, according to this report, faces challenges from other countries for leadership in economic productivity and technological innovation. Education must enable workers to meet future job demands by providing them with today's basic skills, as well as the high level skills that reportedly will be required tomorrow.

3. Recommended Changes

The Task Force focused primarily on the roles that States and business might play in addressing the educational system's deficiencies. Each governor was called upon to develop an "action" plan for improving public education, setting specific goals for improvement and timetables for achieving those goals. The Task Force recommended that business leaders, among others outside the educational system, should be active in improving public education, primarily by developing partnerships with schools. These partnerships might encourage activities such as team teaching with personnel from business and schools.

The public school systems should make better use of their existing resources, according to the Task Force. In addition, they should have increased financial and human resources from States and localities.

The Task Force recommended that States and local school boards "drastically improve" practices by which teachers were recruited, trained, and compensated. Teacher salary schedules should be competitive with other professions, and financial incentives should be given for good performance.

The academic experience of students, said the report, must be made more rigorous, through strong requirements for discipline, attendance, homework, and grading. Elimination of "nonessential" courses was advocated, as were efforts to ensure that time in school is spent more effectively and that consideration is given to lengthening that amount of time. Greater "quality assurance" is needed, encompassing actions such as improvement of teacher certification procedures, periodic student testing, and the raising of college entrance requirements.

Leadership and management should be improved. Principals, it was recommended, should be allowed to concentrate on their educational responsibilities and be paid a competitive salary.

Finally, the Task Force called for special educational efforts for different kinds of students, including women and minority students, academically gifted individuals, dropouts, and the handicapped. States were urged to continue efforts to achieve more equitable distribution of educational resources among school districts.

4. Federal, State, and Local Roles

Clearly, for the Task Force, States should play the principal role in reforming schools. The discussion of the report's recommendations (above) delineates an active State role. The Task Force believed that the Federal

Government's role in education is significant because education is a national priority. The Federal responsibilities in education include educational assistance to disadvantaged groups, student assistance, support for research and development, and efforts to meet the Nation's labor needs. The Task Force asserted, "This is no time for the Federal Government to shirk these responsibilities, or to shrink suddenly from the issue of education as a national priority. The Federal Government's role, to be sure, is a supporting one. But that role is essential." 75/

D. High School--Ernest Boyer, Carnegie Foundation for the Advancement of Teaching

On September 15, 1983, the Carnegie Foundation for the Advancement of Teaching issued a study entitled High School: A Report on Secondary Education in America, based on over 2 years of observation and interviews at 15 high schools across the country. Principally authored by Ernest L. Boyer, president of the foundation, the report offered a comprehensive view of conditions in U.S. high schools and a detailed plan to remedy their problems.

1. Conditions

Boyer concluded that high schools "lack a clear and vital mission." They are institutions "adrift." Many students fail to master the English language, and most do too little writing while in school. Teachers work under conditions that often preclude effective or sustained teaching. Principals are poorly

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75/ Education Commission of the States' Task Force, p. 36.

prepared to exert educational leadership, excessively burdened by administrative duties and given too little authority.

2. Goals

Citing the absence of generally held goals for high schools, Boyer advocated that high schools seek to teach students how to think critically and communicate effectively; teach students about themselves, their heritage, and other cultures and nations; prepare students for work and further education; and, help students meet their social and civic obligations.

3. Recommended Changes

The report's "agenda for action" begins with the clarification by every high school of its goals. Mastery of the English language, both written and oral, is the next priority after goal-setting, with each high school student completing a year-long basic English course emphasizing writing and a semester-long speech course.

The basic English course and the speech course would be part of a single-track core curriculum expanding the number of required courses high school students would have to take from one-half to two-thirds of the units needed for graduation. All students would take 1 year of literature, a semester of arts, 2 years of foreign languages, 2 1/2 years of history, 1 year of civics, 2 years of science, 2 years of math, semester-long courses in technology and health, a seminar on work, and a senior independent project. The electives available to students would be concentrated in the last two years of high school and would include advanced academic study and the exploration of career options. All

students would complete a new service unit consisting of volunteer work in their school or community. Among the actions needed to support this new curriculum, Boyer advocated the strengthening of guidance services available to students, and the development of a Student Achievement and Advisement Test, replacing the current Scholastic Aptitude Test.

According to Boyer, high school teachers must have their loads reduced to allow for class preparation and record keeping. Nonacademic burdens such as lunchroom monitoring should be ended. Teachers should have more control over the selection of instructional materials. Teaching excellence should be rewarded through financial awards and recognition. Boyer called for a 25 percent increase in teachers' salaries above the rate of inflation, over the next 3 years. Under a proposed new career path, ability and performance would move teachers along a three-stage path from "associate" teacher, to full teacher, to "senior" teacher. Salary should increase at each stage.

The academic abilities of persons entering the teaching profession should be raised. Boyer recommended that full-tuition scholarships be offered by colleges and universities to the top 5 percent of their juniors who plan to teach in public schools. The Federal Government should establish a National Teacher Service offering tuition scholarships to students who graduate in the top one-third of their high school class. Prospective teachers should complete an academic major in the junior and senior years of college with a new fifth year devoted to education.

Principals, after following a pattern of preparation similar to that of teachers, should be given more control of their school budgets and a greater role in selecting and rewarding teachers.

Larger blocks of instructional time should be part of the school day, particularly for programs such as creative writing. Large high schools, Boyer stated, need to establish smaller within-school units to encourage greater student participation. Special students' needs should be addressed by flexible arrangements. The report called for creation of a network of Residential Academies in Science and Mathematics with Federal support. Finally, education for all "high risk" students should be improved, partially through the full funding of the Chapter 1 (compensatory education) program by the Federal Government.

Although educational technology, particularly computers, "enrich" instruction, Boyer concluded that school systems should purchase such items only after carefully determining why the equipment is needed and how it will be used. The Secretary of Education, it was recommended, should name a National Commission on Computer Instruction, to evaluate existing educational software. In addition, the Federal Government should fund 10 Technology Resource Centers on university campuses to demonstrate the latest technology and to help develop regional networks of computerized library services.

4. Federal, State, and Local Roles

Boyer advocated a concerted effort by all levels of government and other agencies affected by education, such as business, to facilitate reform. The connections of high schools to colleges, industry and business, parents, communities, and government should be strengthened. States should "establish

general standards and . . . provide fiscal support, but not . . . meddle." 76/ Federal support should remain important. "Washington does not and should not run the schools. Still, public education presents a serious national challenge, and there should be a national response." 77/ Three broad purposes should be served by the Federal Government--provision of information on the condition of education, assistance for disadvantaged and handicapped students, and assistance to meet emergency national needs.

E. Educating Americans for the 21st Century--National Science Board Commission on Precollege Education in Mathematics, Science and Technology

The National Science Board Commission issued Educating Americans for the 21st Century in September 1983 to the National Science Foundation. The Commission's findings on the condition of education were delineated in detail in a separate report issued in 1982 (Today's Problems, Tomorrow's Crises).

1. Conditions

The Commission concluded, "The Nation that dramatically and boldly led the world into the age of technology is failing to provide its own children with the intellectual tools needed for the 21st century." 78/

76/ Boyer, p. 288.

77/ Ibid., p. 291.

78/ National Science Board Commission, p. v.

2. Goals

The Commission called for the building of a "national commitment" to educational excellence, with a particular emphasis on math, science, and technology. Skills in these areas were among those that the Commission asserted would be in most demand during the next century.

3. Recommended Changes

The Commission called for a visible and on-going national process of identifying and preserving educational excellence, embodied in a National Education Council established by the President and in Governors' Councils at the State level. Periodic assessments of educational achievement and participation in education should be a part of this process, building on the present work of the National Assessment of Educational Progress. The Commission called for efforts to provide quality education to all students, noting a "unique" Federal role in this area.

The Commission found examples of educational success in U.S. schools and believed these offered models to be widely emulated throughout the country. The Federal Government should finance, in part, 2,000 exemplary schools, split between the elementary and secondary levels, to serve as catalysts for educational change.

Teaching in math, science and technology is in a state of crisis, according to the Commission. Recommended reform efforts, in a 5-year program to upgrade skills and knowledge of current teachers, included development by States of teacher training programs, Federal financial support for such

ventures, and National Science Foundation seed money for statewide or regional teacher training programs using new information technologies. Increased standards for new teachers were advocated, including State action to impose rigorous certification standards for new math and science teachers, and action at the higher education level to establish higher admissions, curriculum, and graduation standards for future teachers. To fill present teaching deficits in these academic areas, the Commission recommended tapping other sources of qualified persons, such as industry, the military, and universities.

Improvement in the conditions in which teachers work is needed, according to the Commission. Compensation competitive with comparable professionals in other sectors should be provided to highly qualified math, science, and technology teachers. Among the recommended State or local actions were the provision of a salary and status ladder that did not take excellent teachers out of the classroom; and the exploration of ways to extend the employment year for teachers in these areas (one suggestion for exploration by local districts was lengthening of the school year). The Commission recommended that every State develop a regional training and resource center to support math and science teachers in the schools.

The Commission advocated improvements in math, science, and technology curricula, and more instruction time for these subjects, calling for an hour of math and half an hour of science each day in grades K-6, full year courses in math and in science and technology in each of the 7th and 8th grades, and high school graduation requirements for all students of 3 years of high school math and 3 years of science and technology study (including a semester of computer science). This increased instruction time, the Commission acknowledged, would

require substantial lengthening of the school day, week, or year. The Commission recommended that colleges and universities phase-in higher math and science entrance requirements, requiring 4 years each of high school math and science.

The National Science Foundation was called upon to take the lead in promoting curriculum evaluation and development. Professional societies also should play an active role in curricular reform. A Mathematics, Science, and Technology Curriculum Council, the Commission suggested, might be formed to make recommendations on curriculum, review texts, publish evaluations, and identify problem areas and those areas appropriate for future research.

With regard to computer training, the Commission called on each State to ensure that teachers and students have access to such training. States should consider developing regional computer centers for demonstrating and training in new technologies relevant to education. School districts should have explicit computer literacy plans. Cooperative ventures with business should be formed involving resource sharing and equipment contribution. In addition, the Commission recommended that the National Science Foundation support the development of technology courses and take a leadership role in assessing educational technology, determining needs and disseminating information. A Council for Technology Application in Education might be formed to advise the Foundation on initiatives in this area. Federal support for the improvement of educational software was also recommended.

The Commission also addressed the role of informal education in developing math, science, and technology literacy. Cooperative ventures should be formed linking school districts to youth organizations, museums, broadcasters, and

other groups. The Federal Government should support science program broadcasting. Federal regulations should require commercial broadcasters to provide a period of educational programming.

4. Federal, State, and Local Roles

Each level of government, particularly Federal and State governments, has an active role in implementing school reform, according to the Commission. The discussion above on recommended changes delineates actions by different actors.

The Commission recommended the establishment by the President of a Council on Education Financing to determine the costs of the Commission's recommendations, the amount of funding that could be saved through increased efficiency or the elimination of existing programs, the levels of government that should provide funding to implement its recommendations, and ways to generating the funds. The Commission itself estimated the cost of its recommended Federal activities to be over $1.5 billion in the first year of implementation.

F. A Place Called School--John I. Goodlad, A Study of Schooling

Published late in 1983, A Place Called School: Prospects for the Future, by John I. Goodlad, is one product of a multi-year project entitled a Study of Schooling, conducted under the aegis of the Institute for Development of Educational Activities, Inc. and the Laboratory in School and Community Education of the Graduate School of Education (University of California, Los Angeles). Support for the project comes from several foundations, as well as the Department of Education's National Institute of Education.

1. Conditions

Goodlad found that "American schools are in trouble. In fact, the problems of schooling are of such crippling proportions that many schools may not survive. It is possible that our entire public education system is nearing collapse." 79/

He provided a litany of specific problems. Too much time in schools is spent in routine administrative chores. Teachers conduct classes with a neutral or flat emotional tone, relying almost exclusively on lecturing. Schools excessively utilize tracking, separating the best students from classes where they could assist their fellow students. The resources of time and teachers are devoted to basic skills, not higher order thinking skills. Vocational education, he concluded, comes to occupy an inappropriately prominent place in the school curriculum.

2. Goals

Goodlad found that States with relative consistency, identify similar objectives for their schools. Schools are to assist in the "intellectual, social and civic, vocational, and personal development of students, with greatest emphasis on the first." 80/ Goodlad delineated a set of goals that he proposed schools consider as a starting point for deliberation. These goals included "mastery of basic skills and fundamental processes," "intellectual

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79/ Goodlad, p. 1.

80/ Ibid., p. 47.

development," "career education-vocational education," "interpersonal understandings," "citizenship participation," "enculturation," "moral and ethical character," "emotional and physical well-being," "creativity and aesthetic expression," and "self-realization." 81/

3. Recommended Changes

Goodlad asserted that the necessary curricular changes had to be accompanied by changes in teaching styles or else the troubling dropout problem would be exacerbated. He asserted that the curriculum should be focused on higher order thinking skills; and, teachers should use "mastery learning" concepts in their teaching, seeking student mastery of subject matter.

Principals and teachers should be given greater power within their schools, he recommended. Principals should be trained how to create a learning environment in their schools, and teachers should have some authority in the allocation of some educational funding. Goodlad recommended lengthening the school year to 200 days to permit principals and teachers to plan and carry out needed school improvement.

To address adverse effects of the large size of today's schools and to instill greater responsibility on the part of teachers for the progress of their students, Goodlad proposed establishing school-within-schools, with clusters of grades being the responsibility of sets of teachers. A set of teachers would be accountable for the educational progress of a cohort of students through a cluster of grades. Students in groups of no more than 100

81/ Ibid., p. 50-56.

would attend, in sequence, 3 different school units with different grade clusters. No single unit would have a total enrollment of over 400. After pursuing a common core curriculum and graduating at age 16, students would enter a fourth stage of work, study, and service.

4. Federal, State, and Local Roles

Goodlad advocated decentralization of power with regard to schools. He described very little of what government's role should be in education. He did admonish that States should be goal-setters, providing local schools with the freedom to follow different paths toward achievement of those goals.

G. Horace's Compromise--Theodore Sizer, A Study of High Schools

Horace's Compromise by Theodore R. Sizer, the first report from the 5-year Study of High Schools, sponsored by the National Association of Secondary School Principals and the National Association of Independent Schools, was published early in 1984. Horace is the first name of a fictitious teacher Sizer creates to delineate the compromises good teachers are forced to make.

1. Conditions

Sizer found high schools to be following an educational prescription devised early in the 20th century that had little relevance to the needs of today's students and teachers. Today's teachers, he stated, compromised their teaching skills, expectations, and standards because, among other things, they work for relatively little money, have responsibility for too many students, and experience frequent interruptions during class hours.

As noted earlier, Sizer identified two dominant incentives for adolescent behavior relevant to education--the desire for a high-school diploma and the desire for respect. But high schools fail to capitalize properly on these incentives. Schools use the diploma as a device to secure students' attendance; instead of seeking academic mastery as a condition for awarding the diploma. Schools fail to grant importance to students' desire for respect; rather, they place a premium on students' docility, with no reward given for "questing" (indeed, such action carries risks).

The high school curriculum, according to Sizer, is misfocused on comprehensiveness, excessively concerned with conveying information, and counterproductive in its fragmentation. This results from top-down regulation of schools which fails to recognize the variability and uniqueness of local conditions and the need for flexibility to achieve educational goals. The curriculum, in Sizer's view, sacrifices students' subject matter mastery in its drive for comprehensiveness. He criticized certain elements in the curriculum: vocational education (the best vocational education, he stated, is that provided on the job), physical education (he found it neither physical nor education), and foreign language study (such study is irrelevant when English has not been mastered).

Sizer found many teachers and students engaged in a "conspiracy of the least," seeking an orderliness that was without academic substance. In essence, teachers and students tacitly agree that neither will take steps that threatened the maintenance of order in the classroom. Teachers have little autonomy or true independence. Salaries, appearing to be significantly low in light of the responsibilities ostensibly placed on teachers, are based

generally on two criteria: experience (Sizer found this an appropriate measure) and college credits (he labeled this unreasonable). Finally, few salary schedules reward teaching ability as measured by success with students.

Sizer criticized the degree of centralization he found in schools, particularly as imposed by the States. The top-down control of schools has a least six faults:

(1) it overlooks local idiosyncracies;

(2) it relies excessively on statistics as measures of success (e.g., test scores);

(3) it sets counterproductive norms (e.g., all 16 year olds will be in the 11th grade);

(4) it specifies certain academic tasks for certain individuals with a high degree of detail (as a result, students are served by a group of specialists and are virtually unknown to any of them);

(5) it resists change; and

(6) it stifles the incentive of those at the bottom.

2. Goals

Americans, Sizer wrote, hold a strongly uniform view of what high school education should provide students. A list of goals set by a California high school in 1979 is reportedly typical: "fundamental scholastic achievement," "career and economic competence," "citizenship and civil responsibility," "competence in human and social relations," "moral and ethical values," "self-realization and mental and physical health," "aesthetic awareness," and "cultural diversity." What Sizer noted as striking about lists such as these

is their optimistic rhetoric and their divergence from the reality of what transpires in the schools.

Sizer advocated that high schools focus on helping students use their minds. The schools, in this regard, should have three objectives: development of intellectual skills, acquisition of knowledge, and understanding of ideas and values.

3. Recommended Changes

The solution to improving high school education in this country, according to Sizer, lies in improving the working conditions of teachers. Among the critical changes he advocated are granting teachers a substantial degree of autonomy (more autonomy for more capable teachers), holding them accountable for the mastery exhibited by their students, reducing the number of students for which each teacher is responsible, decentralizing authority to levels much closer to students, providing steeper salary schedules, providing variations in work responsibilities (permit teachers to function at different times as supervisors, administrators, counselors, etc.), ensuring stability in schools (e.g., minimizing last minute reassignments of teachers), and providing safe places to work.

Sizer asserted that teachers should be responsible for imparting skills, knowledge and understanding. The first would be accomplished by coaching as students are guided through experiences; the second would be conveyed through telling (pedagogical style dominant in today's schools); and the last would be achieved through questioning (i.e., the Socratic method of teaching). He

posited one model for the broad content of a curriculum necessary to attain these objectives. It would cover inquiry and expression; mathematics and science; literature and arts; and philosophy and history.

Sizer recommended a different structure for schools, one that grants authority to those closest to students, that is, to teachers and principals, and one that removes distractions for those individuals as they seek to carry out their tasks. To accommodate the resulting variability, schools would have to reject the comprehensive curriculum, in favor of one focused on intellectual skills, knowledge, and understanding in a more concentrated core of subject areas. High schools would be broken down into separate schools or "houses" in schools to maintain the conditions under which teachers could come to know their students and develop the appropriate teaching strategies for each. The different teaching methods required for conveying skills, knowledge, and understanding demand flexible arrangements.

The high school diploma should be awarded only when students have exhibited mastery of a more focused curriculum, and students should be granted a degree of autonomy and responsibility allowing them to "personalize" their work in school. Mastery would be exhibited through a variety of ways, not merely pencil and paper tests, but in other unspecified ways. As mastery was demonstrated, students would acquire greater freedom and responsibility to direct their educational experiences.

According to Sizer, students should be compelled by government only to achieve literacy, numeracy (an ability to perform numerical calculations), and an understanding of civic responsibilities. Most students will have demonstrated mastery of these basic requirements prior to attending senior high

school. Once these requirements have been met, Sizer asserted that government should place no additional educational mandate on adolescents. High school attendance would be voluntary; students would be there because they wanted to be.

4. Federal, State, and Local Roles

Sizer advocated that government at whatever level grant high schools the freedom and flexibility they need to achieve their goals. Mandates from higher authorities to the local educational setting are counterproductive, failing to recognize legitimate and disparate local needs.